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PATENT

Attorney Docket No. 2105.0013C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Payne et al.

Serial No.: 10/581,905

Confirmation No.: Unknown

Filed: June 7, 2006

For: Biolithographical Deposition, and Materials and Devices Formed Therefrom



Examiner: Unknown

Art Unit: Unknown

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)**

Pursuant to the duty imposed by 37 C.F.R. §1.56 to disclose information which may be material to the patentability of the above-identified patent application, the Applicant(s) would like to direct the Examiner's attention to the documents listed on the enclosed Information Disclosure Citation Form (PTO/SB/08). In accordance with this duty of disclosure, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- ☒ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is enclosed.
- ☐ The subject Information Disclosure Statement is being filed without copies of the listed U.S. Patents and/or U.S. patent application publications pursuant to the waiver of the requirement under 37 C.F.R. §1.98(a)(2)(i) for applications filed after June 30, 2003. Copies of the listed foreign patent documents and/or non-patent literature are enclosed herewith.
- ☐ No copies of the publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. _____ to which the above-identified application claims priority under 35 U.S.C. §120.

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- ☐ Publication(s) _____ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to _____ application serial no. _____ and mailed on _____.
- ☐ Enclosed is a copy of a non-English publication(s) _____. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).
- ☐ Enclosed is a copy of a non-English publication(s) _____. English language publication _____ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) _____ for which an English translation is not available.
- ☐ Enclosed is an English translation of non-English publication(s) _____ cited in the attached Form PTO/SB/08A.
- ☐ Enclosed is a copy of pending patent Application Serial No. _____.

This Information Disclosure Statement is filed within any one of the following time periods:

- ☐ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
- ☒ before the mailing date of a first office action on the merits; or
- ☐ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

The Commissioner is hereby authorized to charge payment of any fees required for the above-identified application or credit any overpayment to Deposit Account No. 05-0460.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

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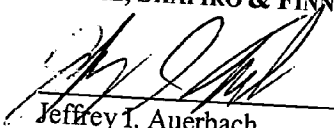
It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: 10/26/2006

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Respectfully submitted by
EDELL, SHAPIRO & FINNAN, LLC

By:


Jeffrey I. Auerbach
Reg. No. 32,680

PTO/SB/08A (08-00)

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FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	09-239396	A	Tatsumi Kenji et al.	09/16/1997	✓
		JP	09-124703		Ono Takashi et al.	11/24/1998	
		WO	00/11038		Guneet Kumar, et al.	11/20/1999	
		WO	02/059395	A2	Jody G. Redepenning	08/01/2002	
		WO	2004/018741	A1	Hyunmin Yi	03/04/2004	

Examiner Signature	Date Considered
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considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

- ¹ Unique citation designation number.
² See attached Kinds of U.S. Patent Documents.
³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).
⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.
⁷ Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.B./

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PTO/SB/08A (08-00)

Substitute for form 1449B/PTO		Complete if Known	
		Application Number	10/581,905
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Filing Date	June 7, 2006
		First Named Inventor	Payne et al.
		Group Art Unit	Unknown
		Examiner Name	Unknown
Sheet	2	of	4
		Attorney Docket Number	2105.0013C

OTHER DOCUMENTS ¹ NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, patent catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AL1	BEEBE, DAVID J. ET AL., Functional Hydrogel Structures For Autonomous Flow Control Inside Microfluidic Channels, Letters to Nature, Vol. 404, 04/06/2006.	
	AM1	CHEN, CHIA-CHUN, Self-Assembly of Monolayers of Cadmium Selenide Nanocrystals with Dual Color Emission, Web Published 07/07/1999, Langmuir 1999, 15, 6845-6850.	
	AN1	CHEN, GUOPING, ET AL., pH-Sensitive Thin Hydrogel Microfabricated by Photolithography, Published on the web 10/09/1998, Langmuir 1998, 14, 6610-6612.	
	AO1	CHEN, TIANHONG, Enzymatic Methods for in Situ Cell Entrapment and Cell Release, Web Published 09/30/2003, Biomacromolecules 2003, 4, 1558-1563.	
	AP1	CHEN, TIANHONG, Nature-Inspired Creation of Protein-Polysaccharide Conjugate and Its Subsequent Assembly onto a Patterned Surface, Web Published 10/03/2003, Langmuir 2003, 19, 9382-9386.	
	AQ1	CLARK, SARAH L. ET AL. Engineering the Microfabrication of Layer-by-Layer Thin Films, Communications, Advanced Materials, July 24, 1998	
	AR1	FERNANDES, ROHAN Thermo-Biolithography: A Technique for Patterning Nucleic Acids and Proteins, Web Published 12/25/2003, Langmuir 2004, 20, 906-913.	
	AS1	FERNANDES, ROHAN, Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface, Web Published 04/15/2003, Langmuir 2003, 19, 4058-4062.	
	AT1	GAO, MINGYUAN, Lateral Patterning of CdTe Nanocrystal Films by the Electric Field Directed Layer-by-Layer Assembly Method, Web Published 03/27/2002, Langmuir 2002, 18, 4098-4102.	
	AU1	KASTANTIN, MARK J., Integrated Fabrication of Polymeric Devices for Biological Applications, Journal of Sensors and Materials, Special Issue on Biomedical Applications, Inc. Press, Published September 2003.	
	AV1	MUZZARELLI, RICCARDO A. A. ET AL., Tyrosinase-mediated quinine tanning of chitinous materials, Carbohydrate Polymers 211 (1994) 295-300.	
	AW1	O'CONNOR, STEPHEN M. ET AL., Immobilization of neural cells in three-dimensional matrices for biosensor applications, Biosensors & Bioelectronics 14 (2000) 871-881.	

Examiner Signature	Date Considered
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¹ Unique citation designation number.

² Applicant is to place a check mark here if English language Translation is attached.

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Receipt date: 10/26/2006

10581905 - GAU: 1711

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PTO/SB/08A (08-00)

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		Examiner Name	Unknown	
Sheet	3	4	Attorney Docket Number	2105.0013C

OTHER DOCUMENTS - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author(s) (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, social symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AL2	O'CONNOR, STEPHEN M. ET AL., Immobilization of neural cells in three-dimensional matrices for biosensor applications, Biosensors & Bioelectronics 14 (2000) 871-881.	
	AM2	PAYNE, GREGORY F. ET AL., Tyrosinase Reaction/Chitosan Adsorption for Selectively Removing Phenols from Aqueous Mixtures, Biotechnology and Bioengineering, Vol. 40 Pg. 1011-1018 (1992).	
	AN2	SEONG, GI HUN ET AL., Fabrication of Microchambers Defined by Photopolymerized Hydrogels and Weirs within Microfluidic Systems: Application to DNA Hybridization, Anal. Chem. 2002, 74, 3372-3377.	
	AO2	SIRKAR KAUSHIK ET AL., Amperometric Biosensors Based on Oxidoreductases Immobilized in Photopolymerized Poly(ethylene glycol) Redox Polymer Hydrogels, Anal. Chem. 1998, 2888-2894.	
	AP2	SUN, WEI-QIANG ET AL., Tyrosinase-Containing Chitosan Gels: A Combined Catalyst and Sorbent for Selective Phenol Removal, Biotechnology and Bioengineering, Vol. 51, Pages 79-86 (1996) John Wiley & Sons Inc.	
	AQ2	TAKENAKA, SHINSUKE ET AL., Sol-gel preparation of single-layer, 0.75 um thick lead zirconate titanate films from lead nitrate-titanium and zirconium alkoxide solutions containing polyvinylpyrrolidone, Applied Physics Letters, Volume 79, Number 21, Pages 3845-3847, Published 11/19/2001.	
	AR2	TATSUMI, KENJI, Removal of Phenols From Wastewater By An Enzyme And Chitosan, Advances in Chitin Sciences 1997, Vol. 2, pages 864-869.	
	AS2	WADA, SHINJI, Removal of Phenols and Aromatic Amines from Wastewater by a Combination Treatment with Tyrosinase and a Coagulant, Biotechnology & Bioengineering, Vol. 45, Pages 304-309, (1995).	
	AT2	WU, LI-QUN, Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles, Web Published 03/17/2005, Langmuir 2005, 21, 3641-3646.	
	AU2	WU, LI-QUN, Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template, Web Published 01/04/2003, Langmuir 2003, 19, 519-524.	
	AV2	WU, LI-QUN, Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface, Web Published 09/21/2003, Langmuir 2002, 18, 8620-8625.	

Examiner Signature		Date Considered	
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>	
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				Examiner Name	Unknown
Sheet	4		4	Attorney Docket Number	2105.0013C

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Examiner Signature	/Andrew Bowman/	Date Considered	06/18/2010
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with LTRB 200-1

	Considered	00/10/2010
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